520 Deer Creek Drive

Oxford, MS 38655

May 12, 2015

The Honorable Eddie Bernice Johnson

Ranking Member, Committee on Science, Space, and Technology

U.S. House of Representatives

394 Ford House Office Building

Washington, DC 20515

Dear Representative Johnson:

At the request of Congressional Staff I am submitting this letter as a citizen expert for your consideration. I was requested to review H.R. 1508 and provide a comment. I am currently Professor Emerita at the University of Mississippi School of Law where I taught *United States National Space Law*, *International Space Law,* and *Remote Sensing Law* from 2001 to 2013. Prior to that I taught similar courses in the Space Studies Department at the University of North Dakota Odegard School of Aerospace Sciences from 1987 to 2001. I was the Editor-in-Chief of the JOURNAL OF SPACE LAW from 2001 – 2013. My complete *curriculum vitae* is attached for your reference.

1. Outer Space Treaty Art. II prohibition of national appropriation by "any other means".

This comment addresses the most important issue raised by the Bill on its face. The Bill provides, "[a]ny asteroid resources obtained in outer space are the property of the entity that obtained such resources, which shall be entitled to all property rights thereto, consistent with applicable provisions of Federal law."[1] The Bill defines a "space resource" as a "natural resource of any kind found in situ in outer space."[2] It further defines an "asteroid resource" as "found on or within an asteroid."[3] The bill is addressing unextracted resources.

The United States is a State-Party to the *Treaty on Principles Governing the Activities of States in the Exploration and Use of Outer Space, Including the*

[1] H.R. 1508 § 51303 (a).
[2] H.R. 1508 § 51301 (1).
[3] H.R. 1508 § 51301 (2).

Moon and Other Celestial Bodies.[4] It prohibits "national appropriation by claim of sovereignty, by means of use or occupation, ***or by any other means***."[5] The Bill attempts to grant U.S. jurisdiction over "any asteroid resource" *in situ* in order to authorize and require the "President…to facilitate the commercial exploration and utilization of space resources to meet ***national*** needs".[6] Making unextracted, *in situ* "asteroid resources" subject to U.S. Federal law and requiring the President "to meet national needs"[7] is a form of national appropriation by "other means"[8].

2. The Bill does not provide for any specific licensing regime.

Unlicensed U.S. commercial space activities are unprecedented in United States space law. All commercial space activities to date require appropriate licensing by an authorized agency. Specific statutes delegate licensing authority to specific agencies. For example, the Commercial Space Launch Act authorizes the FAA to license commercial launch activities.[9] The 1992 Land Remote Sensing Policy Act authorizes the Department of Commerce to license commercial remote sensing systems.[10] Licensing is how the U.S. meets it obligations to authorize and continually supervise the space activities of non-government entities under the Outer Space Treaty.[11]

> In particular, it is important to note that ***the license requirement*** imposed on the licensee that it maintain 'operational control,' as the term is defined in Section 960.3, ***is an implementation of U.S. obligations under the United Nations Outer Space Treaty of 1967***. That treaty provides that the U.S. Government, as a State party, will be held strictly liable for any U.S. private or governmental entity's actions in outer-space. Consequently, NOAA requires that licensees under this part to maintain ultimate control of their systems, in order to minimize the risk of such liability and assure that the national security concerns, foreign policy and international obligations of the United States are protected.[12]

The lack of a specific licensing regime also fails to meet the State Department's concern raised in a letter to Bigelow Aerospace from the FAA: the

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[4] Treaty on Principles Governing the Activities of States in the Exploration and Use of Outer Space, Including the Moon and Other Celestial Bodies, opened for signature Jan. 27, 1967, 18 U.S.T. 2410, 610 U.N.T.S. 205 [hereinafter Outer Space Treaty].
[5] Outer Space Treaty, Art. II. Emphasis added.
[6] H.R. 1508 § 51302 (a) (1). Emphasis added.
[7] H.R. 1508 § 51302 (a) (1).
[8] Outer Space Treaty, Art. II.
[9] 51 U.S. Code 50903
[10] 51 U.S. Code 60121
[11] Outer Space Treaty, Art. VI.
[12] 15 C.F.R. § 960 at 24477 (2006). Emphasis added.

lack of a national regulatory framework with respect to private sector activities on celestial bodies.[13]

3. The Bill only provides for a report.

The Bill requires the President to submit a report to recommend which Federal agencies will be necessary to meet US international obligations.[14] This may be sufficient. It is worth noting that reports are not the equivalent of licensing regulations that go through the Administrative Procedure Act[15] process. However, this is a Federalism question, not a space law question so I will only point out the issue and note it is worth questioning and seeking the view of a relevant expert.

Sincerely,

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[13] Kenneth Chang, *A Business Plan for Space*, The N.Y. Times (Feb. 9, 2015), http://www.nytimes.com/2015/02/10/science/a-business-plan-for-space.html?emc=eta1&_r=1

[14] H.R. 1508 § 51302 (b).

[15] 5 U.S.C